

Claims:

1. A computer assembly which comprises:

5 (i) a housing;

(ii) a host processor located within the housing;

10 (iii) a service processor located within the housing for providing system management functions within the computer assembly;

15 (iv) a display that is located on the housing for displaying the status of components of the assembly obtained from the service processor; and

20 (v) one or more manual switches located on the housing for enabling a user to vary information displayed by the display and/or to alter the status of at least one of the components.

2. An assembly as claimed in claim 1, wherein the service processor provides one or more of the following system functions:

- 1) power management control;
- 2) environmental monitoring;
- 3) enclosure management and event logging;
- 4) fan control;
- 5) voltage rail monitoring;
- 6) component status monitoring.

10 3. An assembly as claimed in claim 1, wherein the display and switches are operative to identify the assembly and/or to identify a computer system to which the assembly relates.

15 4. An assembly as claimed in claim 1, wherein the display and switches are operative to enable a user to view an event log or service history of the assembly.

5. An assembly as claimed in claim 1, wherein the display and switches are operative to enable a user to view any malfunction of a component of the assembly.

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6. An assembly as claimed in claim 1, wherein the display and switches are operative to enable a user to run a diagnostic test on the assembly or on a component thereof.

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7. An assembly as claimed in claim 6, wherein the display and switches are operative to list the diagnostic tests that are available and to allow a user to select a test.

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8. An assembly as claimed in claim 1, wherein the display and switches are operative to enable a user to configure the assembly or an electronics system of which the assembly forms part.

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9. An assembly as claimed in claim 1, wherein the display is operative to display the status of the components of the assembly as part of a menu, and the switches are operative to enable a user to navigate the menu.

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10. An assembly as claimed in claim 1, wherein the display and/or switches are connected to the service processor via a microcontroller.

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11. An assembly as claimed in claim 10, wherein the microcontroller is connected to a management bus to which the service processor and components of the assembly to be monitored are connected.

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12. An assembly as claimed in claim 1, wherein the display is an alphanumeric display.

13. An assembly as claimed in claim 1, which includes
5 a console interface that communicates with the service processor to enable system management functions of the assembly to be monitored and/or the status thereof to be modified from a console connected thereto.

10 14. A computer assembly which comprises:

(i) a housing;

(ii) a host processor located within the housing;

15 (iii) a service processor located within the housing for providing system management functions within the computer system;

20 (iv) a display that is located on the housing for displaying the status of components of the assembly obtained from the service processor;

25 (v) one or more manual switches located on the housing for enabling a user to vary information displayed

by the display and/or to alter the status of at least one of the components; and

5 (vi) a console interface that communicates with the service processor to enable system management functions of the assembly to be monitored and/or the status thereof to be modified from a console connected thereto.

10 15. An assembly as claimed in claim 14, wherein the display and/or switches can be enabled and/or disabled by means of signals sent thereto from the console interface.

15 16. An assembly as claimed in claim 15, which is arranged to operate in any of the following modes under command from the console interface:

- 20 1) operation in which the display and switches are fully enabled;
- 2) operation in which the display and switches are completely disabled; and
- 25 3) operation in which only some functions of the

display and switches are enabled.

17. An assembly as claimed in claim 16, which can be
arranged to operate under command from the console
5 interface in a mode in which the display and switches are
enabled to allow a user to view at least certain aspects
of the status of the assembly, but will not allow a user
to alter the status of the assembly.

10 18. An assembly as claimed in claim 14, which is
arranged so that, when the service processor is notified
of a fault in a component, the display and switches are
enabled to allow a user to repair and/or test the fault.

15 19. An assembly as claimed in claim 1, which is formed
as a rack mountable module, and the display and switches
are located in a front fascia thereof.

20 20. An assembly as claimed in claim 1, which is a
network server.

21. A computer system, which comprises a plurality of
computer assemblies, each of which comprises:

25 (i) a housing;

(ii) a host processor located within the housing;

5 (iii) a service processor located within the housing for providing system management functions within the computer assembly;

10 (iv) a display that is located on the housing for displaying the status of components of the assembly obtained from the service processor; and

15 (v) one or more manual switches located on the housing for enabling a user to vary information displayed by the display and/or to alter the status of at least one of the components;

20 the system including a console that can communicate with each of the assemblies and which can enable or disable the display and/or switches on any assembly either completely or in part.

22. A system as claimed in claim 21, wherein the switches of any assembly do not require authentication by a user to be operated, but the console does require authentication in order to be operated.

23. A system as claimed in claim 21, wherein the console
is arranged so that, when notified of a malfunction of
a component of any assembly, the console will
automatically enable the display and switches of that
5 assembly to allow replacement or repair of the component
and/or testing of the component.

24. A system as claimed in claim 23, wherein the console
is arranged so that, when notified of a malfunction of
10 a component of any assembly, the console will
automatically enable the display and switches of that
assembly only insofar as necessary to allow replacement
or repair and testing of the component, and will
automatically disable the display and switches of that
15 assembly to prevent replacement or repair and testing of
the component when the console has been notified that
replacement or repair and testing of the component has
been effected.

20 25. A system as claimed in claim 23, wherein the console
is arranged so that, when notified of a malfunction of
a component of any assembly, the console will
automatically inform a data management centre of the
malfunction.

26. A system as claimed in claim 21, which forms an intranet or part thereof, or forms part of the internet.

27. A method of operating a computer system comprising
5 a plurality of computer assemblies, each of which comprises:

(i) a housing;

10 (ii) a host processor located within the housing;

(iii) a service processor located within the housing for providing system management functions within the computer assembly;

15 (iv) a display that is located on the housing for displaying the status of components of the assembly obtained from the service processor;

20 (v) one or more manual switches located on the housing for enabling a user to vary information displayed by the display and/or to alter the status of at least one of the components; and

25 (vi) a console that can communicate with each of the

assemblies and which can enable or disable the display and/or switches on any assembly either completely or in part;

5 which method comprises enabling the display and/or switches of an assembly that includes a component that has malfunctioned in order to allow the component to be repaired or replaced and to be tested, and then disabling the display and/or switches when the repair or
10 replacement has been effected.

28. A method as claimed in claim 27, wherein the display and/or switches are automatically enabled by the console.